

REMARKS

Claims 1-41 are presented for consideration, with Claims 1, 20, 22, 23 and 33 being independent.

The independent claims have been amended to further distinguish Applicant's invention from the cited art. Support for the claim amendments can be found, for example, on page 27, line 25 through page 29, line 19 of the specification.

Claims 1-3, 5-8, 13, 14, 20, 22-24, 29, 31, 33-36, 40 and 41 stand rejected under 35 U.S.C. §103 as allegedly being obvious over Abe '436. The remaining dependent claims stand rejected as allegedly being obvious over Abe in view of Sato '940 (Claims 4, 12, 30 and 39), Nakai, '971 (Claims 9 and 32), Preston '369 (Claims 15-17, 21, 25 and 26), Shen '900 (Claims 18, 19, 27 and 28) or Millward '366 (Claims 10, 11, 37 and 38). These rejections are respectfully traversed.

Claim 1 of Applicant's invention is directed to an image display apparatus comprising an image signal generating unit for generating an image signal and an image display element for displaying an image on a screen according to the image signal inputted from the image signal unit. When the screen is divided into a portion in which the image is to be displayed and a dark display portion in which no image is to be displayed, a non-dark display is performed in the dark display portion for a predetermined time period from a start time display control until a start time of a process for terminating the display control. As amended, the predetermined time period is set such that when the non-dark display is performed for a time period not longer than the predetermined time period, visual interference seen by a viewer is suppressed.

Claim 20 is directed to an image display apparatus comprising an image signal generating unit and an image display unit as recited in Claim 1. In Claim 20, the screen is divided into a portion in which gradation display is to be performed and a bright display portion in which the gradation display is not to be performed, and bright display is continuously performed while dark display is performed for a predetermined time period in the bright display portion. The predetermined time period is set such that when the dark display is performed for a time period not longer than the predetermined time period, visual interference seen by a viewer is suppressed.

Claim 22 is directed to a method of driving an image display apparatus that includes the steps of displaying a multilevel gradation image in a predetermined area of a screen where a multilevel gradation image to be displayed and performing dark display in another predetermined area of the screen where a multilevel gradation image is not to be displayed. As claimed, a non-dark display is performed in the other predetermined area for a predetermined time period from a start time of display control to a start time of a process for terminating the display control, and the predetermined time period is set such that the when non-dark display is performed for a time period not longer than the predetermined time period, visual interference seen by a viewer is suppressed.

Claim 23 relates to an image display apparatus comprising an image signal generating unit and an image display element for displaying images on a screen by performing bright display and dark display. The screen is divided into an effective image area in which various images are to be displayed and a non-effective image area in which no effective image is to be displayed, dark display is continuously performed while bright display is performed for a predetermined time period in the non-effective image area, with the predetermined time period

being set such that when the bright display is performed for a time period not longer than the predetermined time period, a visual interference seen by a viewer is suppressed.

Lastly, Claim 33 relates to a method of driving an image display apparatus that displays images on a screen by performing bright display and dark display. The method includes the steps of dividing the screen into an effective image area in which images are to be displayed and a non-effective image area in which no effective image is to be displayed, and continuously performing dark display while performing bright display for a predetermined time period in the non-effective image area. The predetermined time period is set such that when the bright display is performed for a time period not longer than the predetermined time period, a visual interference seen by a viewer is suppressed.

In accordance with Applicant's claimed invention, a high performance and long lasting image display apparatus can be provided.

The primary citation to Abe relates to a television receiving set capable of displaying text. With reference to Figures 13A-13D, the displayed television shows a main section where the image is displayed and a blank zone, or dark display portion, where no image is displayed. As asserted in the Office Action, a non-dark display, i.e., teletext, can be shown in the dark display portion.

In contrast to Claim 1 of Applicant's invention, however, Abe does not teach or suggest, among other features, performing a non-dark display for a predetermined time period, with such a time period being set so that when the non-dark display is performed for a time period not longer than the predetermined time period, visual interference seen by a viewer is suppressed. To the contrary, the non-dark display performed in Abe is intended to display text for the viewer to see.

The remaining independent claims, i.e., Claims 20, 22 23 and 33, can be similarly distinguished over Abe.

Accordingly, reconsideration and withdrawal of the rejection of Claims 1-3, 5-8, 13, 14, 20, 22-24, 29, 31, 33-36, 40 and 41 under 35 U.S.C. §103 is respectfully requested.

The secondary citations fail to compensate for the deficiencies in Abe as discussed above. In this regard, Sato relates to a liquid crystal device and was cited for teaching an image reversal. Nakai relates to a picture display region discriminating apparatus and was cited for its teaching of performing a non-dark display for a signal corresponding to a low gradation. Preston relates to a holographic display system and was cited for its teaching of an image display element being a spatial modulation element that uses a liquid crystal. Shen relates to a display screen and was cited for its teaching of an LED. Finally, Millward relates to a spatial light modulator and was cited for its teaching of a non-dark display that is cyclically performed at a frequency of 50 Hz.

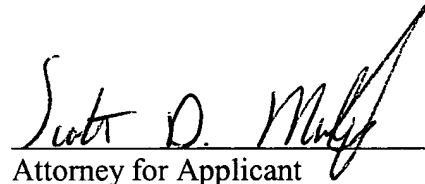
Accordingly, without conceding the propriety of modifying Abe in view of one or more of the secondary citations, such combinations still fail to teach or suggest Applicant's claimed invention. Therefore, reconsideration and withdrawal of the remaining rejections under 35 U.S.C. §103 are respectfully requested.

Therefore, it is submitted that Applicant's invention as set forth in independent Claims 1, 20, 22, 23 and 33 is patentable over the cited art. In addition, dependent Claims 2-19, 21, 24-32 and 34-41 set forth additional features of Applicant's invention. Independent consideration of the dependent claims is respectfully requested.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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